REMARKS

Claims 16-22 and 81-109 are pending. Claims 16-22 and 81-106 are unamended. New claims 107-109 were added to further define embodiments of the present invention.

New claims 107-109 are fully supported by the originally filed specification and drawings. For example, in one preferred embodiment, Figures 21-22 allow the operator to enter "from" and "to" points 223, 224 for a traffic event that may span across multiple links, and thus correlates to a plurality of links. The operator is not limited to single link "from" and "to" points. The operator may even select a "Whole Roadway" box that automatically correlates the traffic event to all of the links on the roadway. Most roadways have a plurality of links.

Examiner Interview

Applicants wish to thank Examiner Mancho for extending the courtesy of a personal interview with the undersigned representative on July 31, 2008. During the interview, items listed on a previously faxed Agenda were discussed. The following specific items were discussed:

1. Applicants reviewed their position that even though the zones in Myr include roads, and roads inherently include road sections defined in Figs. 17 and 20-23 of Myr, Myr provides no details regarding the structure of the inputs made by the Administrator (Human Operator) 277, or **how or if road sections and zones are correlated** to such inputs. Therefore, block 277 is nothing more than a **black box** input for traffic event information, and thus fails to disclose or suggest correlating traffic events with links on a road system. In response, the Examiner repeated his position that the traffic event information (e.g., accidents) must inherently be stored in the CTU Database by using the road section designations disclosed in Figs. 7 and 20-23, despite the lack of an explicit teaching of this capability. Additional arguments regarding the patentability of the claims over Myr appear below.

2. Applicants' undersigned representative discussed proposed new claim language regarding a feature of the present invention wherein traffic information inputted into the processor about a traffic event may be correlated to a plurality of links on the road system. The advantages of this feature and the manner in which it patentably distinguishes from Myr were

discussed. The Examiner stated that such a clause might patentably distinguish over Myr, but that any final decision on patentability would be made after formal review of the next response.

3. Regarding the proposed new claim language, Applicants' undersigned representative stated that it was likely to be submitted in a set of new <u>dependent</u> claims, as opposed to an amendment to the independent claims, and requested that the Examiner give separate consideration to such dependent claims, even if there is no change in position regarding the independent claims. The Examiner agreed to give such separate consideration and also noted that an update search will be conducted on the new feature. The proposed new claim language now appears in new dependent claims 107-109.

4. Applicants' undersigned representative also noted that separate arguments for patentability were presented in the "Amendment Accompanying RCE" filed February 19, 2008 (hereafter, "Applicants' previous response") regarding dependent claims sets 19/84/91 and 98/102/106, but that the outstanding Office Action did not fully address such arguments. There was insufficient time to review such arguments, but the Examiner agreed to address such arguments in the next response if these claims are not allowed.

No other agreements were reached at the interview.

Prior Art Rejection

Claims 16-22 and 81-94 were rejected under 35 U.S.C. § 102(b) as being anticipated by Myr. This rejection is respectfully traversed for at least the reasons set forth below.

1. <u>Patentability of new dependent claims 107-109 over Myr</u>

Exemplary claim 107 reads as follows (underlining added for emphasis):

> 107. The method of claim 16 wherein at least some of the traffic information inputted into the processor about <u>a traffic event</u> is correlated to a <u>plurality of links</u> on the road system, and the virtual traffic network represents that the plurality of links are affected by the traffic event correlated to the plurality of links.

In preferred embodiments, such as shown in Figures 21-22, an operator is allowed to enter "from" and "to" points 223, 224 for a traffic event that may span across multiple links, and thus correlates to a plurality of links. The operator is not limited to single link "from" and "to" points. The operator may even select a "Whole Roadway" box that automatically correlates the traffic event to all of the links on the roadway. Most roadways have a plurality of links.

A road system in a major metropolitan area may have thousands of links. This feature frees the operator from having to remember and understand the underlying links that define the road system. The operator merely has to identify easily recognized information such as exit numbers, major intersections, and the like. In the embodiments of Figures 21-22, the information appears on a dropdown menu. A process that runs in the background identifies the relevant link(s) to that correlate with the entered "from" and "to" points. In many instances, multiple links will be identified.

Assuming, *arguendo*, that Fig. 13 of Myr operates as described by the Examiner wherein the road sections in Myr are equivalent to the claimed links, the Administrator (Human Operator) 277 would be able to designate the specific road section (see road sections in Fig. 20) where a traffic accident has occurred and the Accident Reports section 11 of the CTU Database would indicate the road section of the traffic accident. Then, if a vehicle enters a zone that contains the specific road section, the CTU Database would report the traffic accident to the MGU Mobile PC Display Panel shown in Fig. 8.

Again, assuming, *arguendo*, that Fig. 13 of Myr operates in this manner (and Applicants repeat that there is no disclosure or suggestion in Myr that it does), then Myr would still not be capable of correlating inputted information to a plurality of links on a road system, as recited in new claims 95-97. The entire disclosure in Myr regarding road sections is focused on a specific individual road section and what is occurring in that specific individual road section. See, for example, Figs. 17 and 20 of Myr. Referring to Fig. 20, Myr does not describe or suggest any capability of identifying "from" and "to" points that may span and implicate a plurality of road sections, such as the intersection of r6/r7 and the intersection of r9/r10 which span and implicate road sections r7 through r9, and then entering some information that relates to this plurality of road sections, such as an accident. At best, Myr would have to individually repeat the data entry process for r7, r8 and r9, which may be time-consuming and may lead to operator mistakes.

In contrast to Myr, the feature of claims 107-109, if used in Myr, would allow accident information to be correlated with a plurality of road sections. Since Myr lacks any disclosure or suggestion of any such capability, claims 107-109 are believed to be patentable over Myr, even if Myr operates as described by the Examiner.

2. Patentability of dependent claims 19, 84 and 91

Claim 19 reads as follows:

19. The method of claim 16 wherein step (a) further comprises customizing the map data to define locally known features of the road system.

Preferred embodiments of the claimed customization process are described, in part, on paragraphs [0166] and [0169] of the specification. See the discussion of "custom points" and an example of designating the Conshohocken curve as one such point. No such limitation is disclosed or suggested in Myr.

The outstanding rejection refers to various figures and text portions of Myr as allegedly disclosing this limitation, namely, Figs. 1, 3-5, 11, 13, 17, 18; the Abstract; and paragraphs [0013] through [0021]. Applicants have carefully reviewed all such figures and text portions and cannot locate any disclosure in Myr that is even remotely related to this limitation. If the Examiner repeats this rejection, it is respectfully requested that a more specific portion of Myr be highlighted so that Applicants can appropriately respond to the rejection.

Claims 84 and 91 are similar in scope to claim 19 and are thus also believed to be patentable over Myr for the same reasons as applied to claim 19.

3. Patentability of dependent claims 98, 102 and 106

Claim 98 reads as follows:

98. The method of claim 16 further comprising:
(e) graphically displaying the virtual traffic network, including the map data, the flow data and the traffic event information, the graphical display showing the flow data and the traffic event information on a map representing the virtual traffic network, the traffic event information being

integrated into the map by using the specific links on the road system that the traffic events are correlated to.

One preferred embodiment of the claimed graphical displaying is shown in Fig. 6 of the specification. See, for example, the traffic event information (e.g., Alert Types - Incidents, Advisories, Events and Alerts) that is integrated into the map that represents the virtual traffic network. Applicants' link-based recording of traffic event information, which can then be coordinated with the links of the road system, provide for this functionality. No such claim limitation is disclosed or suggested in Myr.

In the Office Action dated October 18, 2007 and in the outstanding Office Action, the Examiner refers to Figs. 8 and 13 and paragraphs [0112] and [0136] of Myr as allegedly disclosing the first clause of claim 98 ("graphically displaying the virtual traffic network, including the map data, the flow data and the traffic event information"). Applicants respectfully traverse this grounds of rejection.

Fig. 8 shows the MGU that was discussed above. While the MGU is a map of roads, no traffic event information is <u>integrated into the map</u>, or even shown on the map at all. If the user selects one of the traffic information buttons 189-191, the user receives only text displays. See paragraph [0111] of Myr, which reads, in part, as follows (underlining added for emphasis):

> [0111] The vehicle's display is an MGU mobile PC display panel. FIG. 8 is a view of the layout of a CMU display panel 180... Text displays include Route Preference information...<u>Further text information under the category Traffic Information includes Accident Information 189, Accident Query 190 and Road Closures 191</u>.

Paragraph [0112] of Myr states that "...the driver may receive both audio and visual summary of all traffic situations and slowdowns 189-101[1] in the particular zone he is traveling in, all in real time." However, there is no disclosure in Myr that the visual summary is integrated into the map shown on the MGU. In fact, the visual summary appears to be similar to the text information referred to in paragraph [0111].

---

[1] It appears that "101" should have read "1<u>9</u>1."

-13-

Fig. 13 of Myr does not make up for the deficiency in Fig. 8 of Myr because Fig. 13 merely shows how data is prepared to be sent to the MGU of Fig. 8. Paragraphs [0112] and [0136] of Myr also do not make up for the deficiencies in Figs. 8 and 13. The relevant text portion of paragraph [0112] was discussed immediately above. Paragraph [0136] merely describes the functionality of the CTU Database of Fig. 13, and thus provides no disclosure that traffic event information is integrated into the map shown on the MGU, or into any other type of map.

In the outstanding Office Action, the Examiner added the following additional explanation to address new text added to claim 98 in the "Amendment Accompanying RCE" filed on February 19, 2008:

the graphical display showing the flow data and the traffic event information on a map representing the virtual traffic network (fig. 8, 17, 20, ect [*sic*]), the traffic event information being integrated into the map by using the specific links on the road system that the traffic events are correlated to (see sec. 0010-0021; figs. 16-18, 20, sec. 0152-0154, 0164-0170)

This additional explanation does not make up for the above-noted deficiencies in Myr of failing to disclose or suggest the first clause of claim 98. Furthermore, Figs. 8, 17 and 20 of Myr do not disclose or suggest the second clause of claim 98, namely, a "graphical display showing the flow data and the traffic event information on a map representing the virtual traffic network." Fig. 8 of Myr was discussed above. Figs. 17 and 20 of Myr show road sections but do not show traffic event information. The last clause of claim 98, namely, "the traffic event information being integrated into the map by using the specific links on the road system that the traffic events are correlated to," is also not disclosed or suggested by Myr for the same reasons as highlighted in item 1 of the Examiner Interview summary above and the additional explanation given below because Myr has no disclosure of traffic event information being correlated to specific road sections on a road system.

Claims 102 and 106 include some limitations similar to those in claim 98 and are thus also believed to be patentable over Myr for at least the same reasons as applied to claim 98.

4. Patentability of independent claims 16, 81 and 88 over Myr

Exemplary claim 16 reads as follows (underlining added for emphasis)

16. A computer-implemented method of creating a virtual traffic network representing traffic conditions on a road system, the method comprising:
(a) inputting into a processor map data representing a road system, the road system being defined by a plurality of links;
(b) inputting into the processor flow data related to traffic flow on the road system;
(c) inputting into the processor information about traffic events obtained from different sources than sources of the flow data, including information that correlates the traffic events to specific links on the road system, wherein the traffic events are occurrences on the road system which may have an impact on the flow of traffic, and the traffic event information is inputted into the processor separately from the flow data; and
(d) the processor integrating the map data, the flow data and the traffic event information to produce a virtual traffic network representing traffic conditions on the road system, wherein the virtual traffic network indicates both the flow data and the traffic event information, the traffic event information being integrated by using the specific links on the road system that the traffic events are correlated to.

Myr fails to disclose or suggest at least the above-highlighted features of claim 16.

The paragraph numbered 2 of the outstanding Office Action repeats the same reasons for rejection as given in the previous Office Action dated October 18, 2007. Applicants fully responded to this rejection in sections 2 and 3 of the previous response, which is incorporated by reference herein. The remarks below address the Examiner's Response to Arguments in the paragraph numbered 3 of the outstanding Office Action.

A. On page 6 of the outstanding Office Action, the Examiner objects to Applicants' revised description of "zones" in Myr given in section 1 of the previous response. In response, Applicants are permitted to correct any inaccuracies discovered in previous explanations of a reference. In fact, Applicants' duty of candor requires that discovered inaccuracies be corrected. Here, the inaccuracy did not even modify Applicants' previous position regarding patentability over Myr. This correction was not made for purposes of "confusing...the prior art" as alleged by the Examiner, but rather to present an accurate explanation on the record of what is believed to

be disclosed in Myr so that Applicants' arguments traversing Myr are based on a correct factual understanding of Myr.

B. The crux of the Examiner's rebuttal position on page 7 of the outstanding Office Action, as best understood by Applicants, is as follows:

    i. The zones in Fig. 11 of Myr are made up of roads or can be interpreted as having stretches of <u>sections</u> of roads.

    ii. Fig. 20 and related Figs. 17 and 21-24 of Myr disclose that roads are defined by road sections (e.g., r6-r18).

    iii. Thus, when the Administrator (Human Operator) 277 in Myr enters traffic event information, such as a road accident, congestion, or weather, the entry includes a "road section" identifier. Accordingly, the Accident Reports and Weather Reports shown in the CTU Database includes are not only correlated to a zone, but are also correlated to a specific road section in the zone.

    Applicants respectfully traverse this position for the same reasons as given in the previous response. The Examiner is effectively <u>reading into</u> Figs. 11 and 13 the concept of accident reports and weather reports being identified by road section when no such disclosure appears in Myr. In fact, no road <u>sections</u> are identified in Fig. 11 and there is no disclosure in Myr that the Administrator (Human Operator) 277 in Myr enters road <u>section</u> information. Thus, it is mere speculation that road section information is entered. Applicants do not wish to speculate on how accident and weather information is entered and organized in Myr, other than to state that it is correlated with a zone as clearly shown in Fig. 13. Applicants position is simply that a § 102(b) rejection over Myr requires that each and every claim element be found in Myr, and that Myr fails this simple anticipation test.

> "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, *in a single prior art reference*." Verdegaal Bros. V. Union Oil Co. of California, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987) (emphasis added).
> Furthermore, the single source must disclose all of the claimed elements *"arranged as in the claim."* Structural Rubber Prods. Co. v. Park Rubber

> Co., 749 F.2d 707, 716, 223 U.S.P.Q. 1264, 1271 (Fed. Cir. 1984)
> (Emphasis added)

Myr clearly lacks such as <u>express</u> teaching. Myr further lacks an <u>inherent</u> teaching. Inherency may not be established by probabilities or possibilities. MPEP 2112, Section IV. The fact that a certain result or characteristic <u>may</u> occur or be present in the prior art is not sufficient to establish the inherency of that result or characteristic. MPEP 2112, Section IV, quoting In re Rijckaert, 9 F.3d 1531, 1534, 28 USPQ2d 1955, 1957 (Fed. Cir. 1993).

At the bottom of page 7 of the outstanding Office Action, the Examiner refers to a statement made by Applicants on page 19[2] of the previous response as indicating that the prior art anticipates the limitations as claimed. Applicants fully responded to this issue on page 19, section iv of the previous response by showing that the Examiner's quotations of Applicants' statements were taken out of context and were not an admission of novelty. Applicants respectfully requests that the Examiner re-review page 19, section iv of the previous response.

C. On page 8 of the outstanding Office Action, the Examiner states that various arguments made by Applicants are not reflected in the claim language. However, the arguments highlighted by the Examiner are merely statement made by Applicants in explaining why Myr's disclosure of zones and congestion/bottleneck information do not meet the claim language of exemplary claim 16, clause (c)[3].

D. In sum, the "Response to Arguments" in the outstanding Office Action fails to provide a supportable rationale for maintaining the § 102(b) anticipation rejection over Myr. Accordingly, withdrawal of this rejection is respectfully requested.

---

[2] The Examiner erroneously referred to page 11 for the location of Applicants' statement.

[3] (c) inputting into the processor information about traffic events obtained from different sources than sources of the flow data, including information that correlates the traffic events to specific links on the road system, wherein the traffic events are occurrences on the road system which may have an impact on the flow of traffic, and the traffic event information is inputted into the processor separately from the flow data

E. On page 3 of the outstanding Office Action, the Examiner refers to traffic events described in Myr such as accidents, weather and congestion as meeting clause (c) of exemplary claim 16. To further highlight the lack of a disclosure in Myr of the clause (c) and (d) features of the independent claims 16, 81 and 88, an Appendix is provided that summarizes all of the text excerpts in Myr's specification regarding accidents, weather, congestion, and road closures. The key text excerpts were all discussed in the previous response. The only text excerpt that even mentions road sections in the context of traffic events is paragraph [0179]. However, as discussed in section 3, paragraph iv of the previous response, paragraph [0179] of Myr describes a proposed scheme that uses traffic flow data to infer that an accident has occurred. That is, the traffic flow data would be used for two purposes, namely, to provide the actual traffic flow and to infer the presence of a traffic incident. Applicants' claims explicitly distinguish over Myr by reciting that information about traffic events are "obtained from different sources than sources of the flow data" and that "the traffic event information is inputted into the processor separately from the flow data." While Myr discloses such a separate inputting process in block 277 of Fig. 13 wherein the CTU Database accepts human operator information inputs regarding the zones, this separate inputting **black box** process does not meet the claim limitations of correlating traffic events to specific links on the road system, as fully discussed above.

5. Patentability of remaining dependent claims

The remaining dependent claims are believed to be patentable over the applied references for at least the reason that they are dependent upon allowable base claims and because they recite additional patentable elements and steps.

Conclusion

Insofar as the Examiner's rejections were fully addressed, the instant application is in condition for allowance. Issuance of a Notice of Allowability of all pending claims is therefore earnestly solicited.

Respectively submitted,

Brian Smyth *et al.*

August 18, 2008   By: _Clark Jablon_
(Date)

CLARK A. JABLON
Registration No. 35,039
PANITCH SCHWARZE BELISARIO & NADEL LLP
One Commerce Square
2005 Market Street, Suite 2200
Philadelphia, PA 19103-7013
Telephone: 215-965-1330
Direct Dial: 215-965-1293
Facsimile: 215-965-1331
E-Mail: cjablon@panitchlaw.com

APPENDIX

Text excerpts in specification of Myr regarding accidents, weather, congestion, road closures (underlining added for emphasis)
[0014] 1. Temporary changes in road conditions known in advance like <u>closed roads</u> under construction, traffic reroutes, etc.; [0015] 2. Regular predictable changes like everyday slowdowns in rush hours; [0016] 3. Sudden unpredictable changes such <u>traffic accidents,</u> traffic <u>congestion</u> due to sudden and drastic changes in traffic arrangements because of visiting dignitaries, etc.
[0099] 14. Online <u>traffic accidents</u> and <u>weather reports</u>
[0101] FIG. 1 is a schematic representation of the information exchange between CTU, MGUs and the GSM Network Server in the Guidance System as described in detail in the Brief Description in the Overview of the Guidance System. The CTU is configured to utilize GSM/GPS or other wireless technology for receiving location data from a fleet of moving vehicles equipped with MGUs that are traveling and thereby passively collecting sample traffic <u>congestion data</u> along a broad range of road systems.
[0111] The vehicle's display is an MGU mobile PC display panel. FIG. 8 is a view of the layout of a CMU display panel 180 according to a preferred embodiment of the present invention. A screen display includes a localised map display 181. Text displays include Route Preference information including start and destination information 182, Shortest Time estimate 183, Shortest Distance estimate 184, Path Recalculation data 185 and User Input data 186. Text displays for Travel Information include User Input 187 and User Query 188. Further text information under the category Traffic Information includes <u>Accident Information 189, Accident Query 190 and Road Closures 191</u>. Audio/Video display information includes Voice Commands 192 and Channel Selection data 193. The above are exemplary in nature and the displays can be changed or customised as desired by the manufacturer and user, and according to the information specified by the user.
[0126] Travel speeds along roads of various types (see FIG. 9) can be obtained from the maximum allowed travel speed and by multiplying it by corresponding speed coefficients… However, theoretical speeds are relevant only to ideal cases and will be probably never utilized except between midnight and early hours in the morning and even then under particularly favorably conditions. There are many reasons for this such as <u>traffic congestion</u> in rush hours, less than perfect road conditions, unfavorable <u>weather conditions,</u> falling trees, public gatherings, demonstrations, and probably a host of other factors that are difficult to enumerate. [0127] The factors may be conveniently classified into three categories: [0128] 1. Generally stable changes in road conditions known in advance like <u>closed roads under construction, traffic reroutes, changes in traffic arrangements because of visiting dignitaries, etc.;</u> [0129] 2. Regular predictable changes like <u>everyday slowdowns</u> in rush hours;

[0130] 3. Sudden unpredictable changes such traffic accidents, traffic congestion due to sudden and drastic changes in weather conditions, etc.

[0134] As to factors in the third category, it appears that even empirical travel times may be unsuitable for describing traffic conditions arising from sudden and unexpected circumstances which might drastically influence traffic conditions, so that the present guidance system takes care of such eventualities by creating and updating special data structures associated with all roads in category A. Any slowdowns on those roads reflected in excessive travel times of vehicles are identified and stored in the database for a limited period of time and may be utilized if and when relevant (see FIG. 13 and the accompanying description in the section Current Travel Times.). This last feature provides the present invention with truly real time capabilities.

[0135] CTU Database
[0136] By utilizing GSM/GPS technology, or GSM technology, or other wireless technology, the CTU tracks the positions of MGUs and updates in real time the database of travel times for all roads... Everything associated with each particular zone is stored in the CTU database as one structure (Units 8-12): theoretical travel times, regular (statistical) travel times, the updated traffic data associated with category A roads and all necessary data for computation of current travel times, accident and weather reports. After new routes based on zone traffic updates have been prepared (block 283), they are sent to MGUs (block 284).

[0177] Online Traffic Accidents and Weather Reports

[0178] In this refinement, the CTU database administrator can utilize most recent information on various traffic accidents and road disturbances reported by reliable sources. These are generally reported as static news items and presented in various formats. The administrator can enter these data directly into the CTU database together with the geographical location, time of the event, expected duration, etc. Similarly, the administrator can record all weather reports and road conditions as related to specific regions. These data can then be entered into the CTU database as related to specific zones together with other traffic data as a part of regional or zone traffic report.

[0179] In additional refinement, specific road disturbances such as road accidents or poor road conditions could also be entered automatically in real time into the CTU database after appropriate verification. The specific road sections where these accidents occurred would be updated automatically and new time coefficients temporarily altered according to a predetermined rating system. Once the road is cleared and report is verified, the original road ratings could be restored to previous status.

[0180] While the management of large amounts of temporary traffic data could be rather involved, the improvement of updating capabilities would be dramatic, especially in zones with large number of road incidents and frequent weather changes.

71360 v1